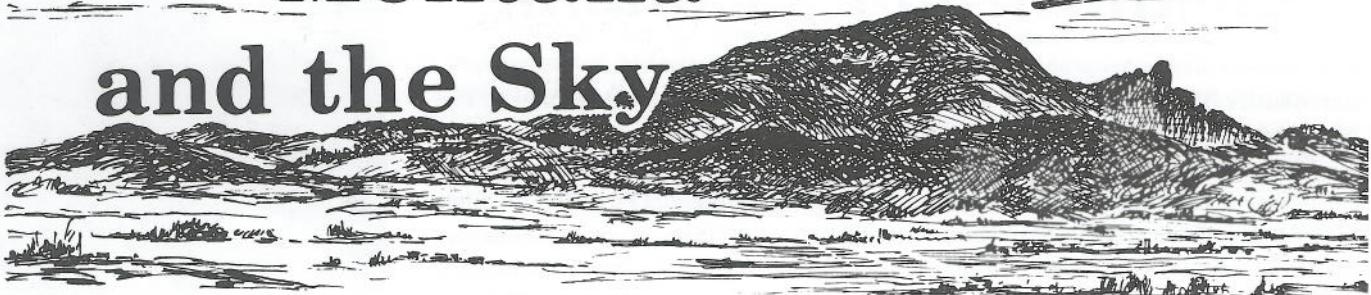


Montana and the Sky



Vol. 41, No. 4

MONTANA AERONAUTICS DIVISION

April 1990

AIRPORT CONSTRUCTION PROJECTS BEGIN

By: Jerry Burrows, Chief
Airport/Airways Bureau

Note: Construction dates and cost estimates may vary. Always check NOTAMs for airport/runway construction. Be on the lookout for men and machinery on airports, especially those only partially closed. They may not hear you and probably aren't looking.

Ennis: New runway construction at existing site. Paved runway, taxiway, and apron. MIRL, PAPI. April - September 1. \$1,000,000.

Cut Bank: Resurface runway 13-31, taxiways A and B. New segmented circle. Refurbish rotating beacon. Runway 18-36 closed during construction. Runway 4-22 to remain open. Check with FSS. Completion by June 30. \$500,000.

Colstrip: Construct new paved runway, taxiway, and apron. Relocate county road, powerline, fencing. May 1 - August 30. \$1,150,000.

Jordan: Runway repairs, resurfacing. Runway lighting improvements. Mid-May - September 1. \$375,000.

Chinook: Obtain land for development. Site preparation. \$386,000.

Eureka: Obtain land for development. \$181,000.

Other general aviation airports with possible upcoming projects: **Ekalaka** - new construction; **Anaconda** - pave, light, lengthen runway 16-34; **Sidney** - parallel taxiway runway 1-19; **Stevensville** - new lighting system, runway resurfacing.

Columbus, Fort Benton, Plains, Townsend, Hardin, and White Sulphur Springs are discussing airport improvement projects.

Ongoing projects at the larger air carrier airports:

Missoula: Runway 7-25 install new lighting system. Rehabilitate aprons. Overlay taxiway. \$800,000.

Billings: Complete paving runway 7-25. Construct new maintenance/fire truck complex. Mid-May - June 30. \$1,162,000.

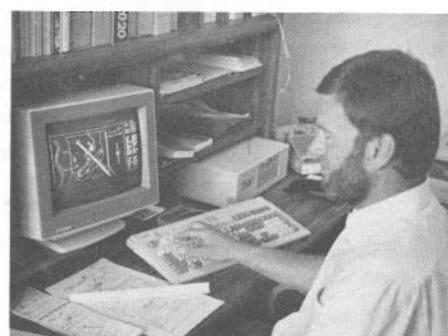
Helena: Construct new satellite maintenance and fire equipment building. Terminal modifications. \$242,000.

Kalispell (GPI): New fire equipment building. Rehabilitate taxiway. Acquire fire truck. \$468,000.

Bozeman: Construct new perimeter road. Terminal modifications. Acquire new fire trucks. \$413,000.

Remember, it is your responsibility to check NOTAMs and otherwise determine if an airport is open and safe to land.

DIVISION BEGINS COMPUTERIZING AIRPORT DRAWINGS



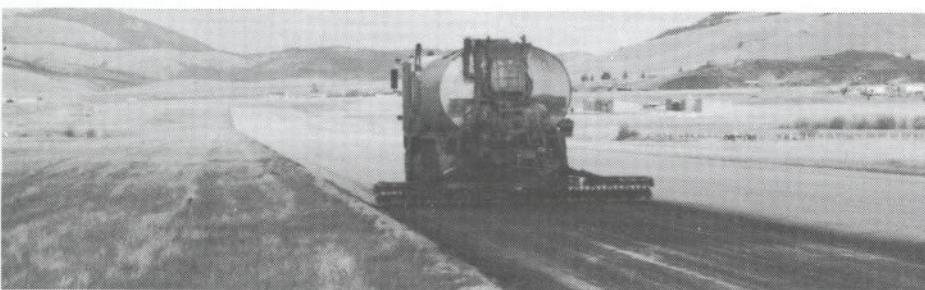
By: Redge Meierhenry
Aviation Representative

Montana Aeronautics Division has begun in earnest computerizing our annual airport directory.

Our computer aided design (CAD) software runs on an IBM compatible personal computer with printed output going to a 24-pin printer. This kind of set-up allows us to produce very high quality graphics at normally one-half the cost of most similar systems.

The most important benefits of using CAD are the reduction in time in making changes to each airport drawing in subsequent years, consistent quality, accuracy, and the ability to transfer our graphics database to the FAA via the National Association of State Aviation Officials.

We believe that the use of a CAD system puts us in the forefront of the state aeronautics agencies in using this kind of technology. Please accept my invitation to have this system demonstrated to you next time you are in Helena.



Administrator's Column

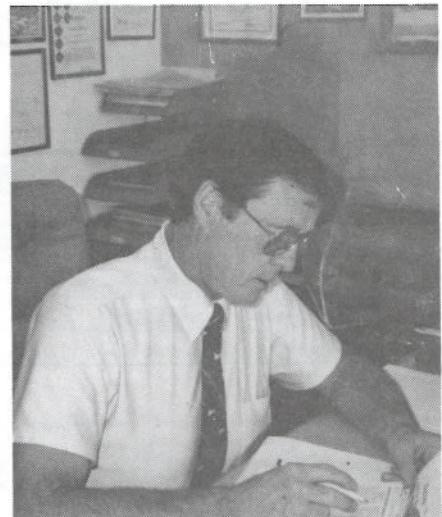
Aeronautics Offers New Weather Reporting Service. Through a generous offer by Pan Am Weather Systems and a private donation, the Aeronautics Division will soon be offering Montana pilots free automated weather briefings throughout the state. Pan Am will install one of their WeatherMation satellite systems for a 90-day demonstration period for pilots to access through home computers. The service will be free, and there will be an 800 number to call. Several states have been providing this service now for several years and with great success. These states feel that this satellite system is far superior to the FAA's DUATS system which is now (some would disagree) up and running. The Pan Am system provides graphics as well as Canadian weather, and it will be able to figure and file flight plans for you. As soon as we have the system installed, we will be providing you with the necessary information on computer modem requirements, operating instructions, and the 800 telephone access number.

* * * * *

Pilot Shortage. President Bush has announced that he will be creating a presidential commission to study the predicted shortage of pilots. It is estimated that the airlines alone will be hiring about 55,000 pilots over the next ten years and that there will still be a shortage of over 50,000 pilots by the year 2000. Part of this is due to the age of the existing pilot force and the mandatory age 60 retirement for airline pilots and the fact that there are fewer and fewer pilots coming from the military. The future for pilot careers certainly appears to be brighter than it's ever been.

* * * * *

A&P Mechanic Shortages. Not only are pilot shortages being predicted, but there are those who fear A&P mechanic shortfalls are of even greater concern. There are pilot programs popping up in our colleges and universities all over the nation. However, there are few, if any, new technical schools for A&P mechanic training, thus this also provides a very optimistic employment opportunity for A&P mechanics.



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MAINTAIN YOUR AIRPORT WITH SLURRY SEALING

By: H. Fred Waller
Senior District Engineer
Asphalt Institute

The use of an emulsified asphalt slurry seal can be an excellent maintenance tool if properly used for its intended purpose. It is effective in both preventive and corrective maintenance of asphalt surfaces. Its timely application will prevent surface distress caused by oxidation of asphalt, loss of matrix and embrittlement of pavement mixture. Applied to surfaces of older pavements showing distress, it will seal the surface making it impermeable to air and water and, with proper aggregate, improve skid resistance.

Slurry seal is a mixture of well graded fine aggregate, mineral filler (if needed), emulsified asphalt and water applied to a pavement as a surface treatment. It produces a smooth attractive black surface that provides excellent contrast with traffic paint. The slurry is produced in a type of travel mixing plant, truck mounted with a towed spreader box attached.

It should be realized that a slurry seal does not improve the structural integrity of the pavement; accordingly, it should never be used as a substitute for a hot mix overlay. Although it does provide a protective cover over an existing pavement as well as improving the aesthetics, the relatively thin application of the slurry does not enhance the structural capacity of the pavement.

The use of a slurry seal has a number of advantages which include:

1. Rapid application;
2. No loose cover aggregate;
3. Excellent surface texture for painting;
4. Ability to correct minor surface irregularities;
5. Improvement of skid resistance;
6. Improvement of aesthetics.

There are three basic types of slurry mixtures. They are usually identified as Type I, Type II, and Type III.

The Type I slurry is a very fine grain material and is used when a light seal is desired. This type material can also serve to fill fine hairline cracks. It is usually applied at a rate of about 6 to 10 pounds per square yard.

The Type II slurry is perhaps the most widely used as its purpose is to provide a general seal coat as well as a minimum amount of crack sealing. The Type II provides rougher

surface texture when the Type I; i.e., better improvement of skid resistance. It is usually applied at a rate of 10 to 15 pounds per square yard.

The Type III slurry is a coarse grain material and has a higher rate of application than either of the other two types - 15 to 20 pounds per square yard which may result in a build-up of about 1/4 inch thickness. The Type III Slurry should not be used on airport pavements where jet operations are involved as there may be loose aggregate particles on the surface that could become ingested in the jet engine. It is often a common practice to use double slurry applications; i.e., a Type I as a first course followed by a Type II or Type III.

A slurry machine is a type of travel mixing plant, truck mounted, with a towed spreader box attached. The unit has separate storage tanks for both the emulsified asphalt and water along with aggregate storage bins. A volumetric metering system is employed for combining the proportionate part of each material.

It is essential a laboratory mix formulation be developed prior to beginning the slurry operations. A determination must be made of the specific quantities and compatibility of all materials employed in the production process. The aggregates, emulsified asphalt, and water should form a creamy textured slurry that, when spread, will flow in a wave ahead of the strike of squeegee. ASTM standard procedures have been developed to assist in the mix design.

The pavement on which the slurry is to be spread should be cleaned by power brooming immediately prior to application of the slurry. In most cases, a very light spray of water or emulsified asphalt to the existing pavement surface will enhance the adhesion and spreading of the slurry mixture.

Traffic should be kept off the slurry until it is properly cured - usually about four hours on a hot sunny day. A slurry should not be applied unless the pavement or air temperature is at least 50 degrees F and rising nor should it be applied when rain is threatening.

Slurry placed at lower temperature usually will not cure properly and may be subject to tracking and rapid erosion.

When the limitations and benefits of a slurry seal are understood, this material can also be used to prolong the useful service life of a pavement structure before a hot mix

overlay becomes necessary.

It should never be used, however, in lieu of an overlay when structural deficiencies are present. The relatively thin application does improve the appearance of a pavement but it does not increase its structural integrity.

(NOTE: This is another in a series of periodic articles in airport safety, maintenance of Montana airport pavements being a crucial element in safety improvement. Rudge Meierhenry.)

All Pilots

ALL ELT transmissions are now reported to Search and Rescue by Satellites.

Before start-up and after shut-down, tune your aircraft receiver to 121.5—your ELT may be transmitting.

CALENDAR

May 4 - 13 - Air/Space America Trade Exposition and Air Show, Brown Field Airport, San Diego, California.

May 19 - 20 - Benchmark Work Session. (If the weather is bad that weekend, May 26 - 27 will be alternate dates.)

June 6 - Central Montana Hangar, MPA, Fly-In Breakfast at Beacon Star Antique Airstrip. Poorboy Sourdough pancakes-Frank Bass, chef.

June 7 - 8 - Aeronautics Board Meeting, Helena.

June 11 - 29 - Aerospace Teacher Workshops.

June 16 - 17 - Southwest Montana Spring Fly-In, Anaconda. Sponsored by Butte Hangar, MPA. (June 23 - 24 will be bad weather dates.)

July 20 - 22 - Schafer Meadows Work Session.

July 27 - Aug. 2 - EAA Fly-In Convention, Oshkosh, Wisconsin.

Aug. 1 - 9 - Alberta Aviation Council's Air Tour '90 through Montana.

Aug. 3 - 5 - MAAA Fly-In, Three Forks

Aug. 11 - Malmstrom AFB Air Show.

Aug. 12 - Harlowton Boy Scout Benefit Fly-In.

Aug. 23 - 26 - Billings Air Show. Featuring the Snow Birds and the Confederate Air Force.

Oct. 5 - 7 - MFF Convention, Kalispell.

MORE 1990 CONFERENCE PHOTOS



Senator Max Baucus attended the luncheon on Saturday and spoke briefly to the participants about current aviation issues.



Visiting with Sen. Baucus after the luncheon are (from left): Russ Pankey, Missoula; Mike Ferguson; and Herb Sammons, Cut Bank.



Pete Pederson, MPA representative on the Aeronautics Board, makes a report during the MPA business meeting.



Ted Beck and Brenda Spivey draw numbers for the lucky winners of the numerous door prizes generously donated by exhibitors.



This interested group is a part of the attendees at the MAMA meeting.



Satellite and computer aided navigation is demonstrated at a concurrent session by Capt. Bill Arnott who also spoke on the 747 Around-the-World Friendship Flight.



Speaking on three different topics, Troy Ball represented the AOPA Air Safety Foundation.



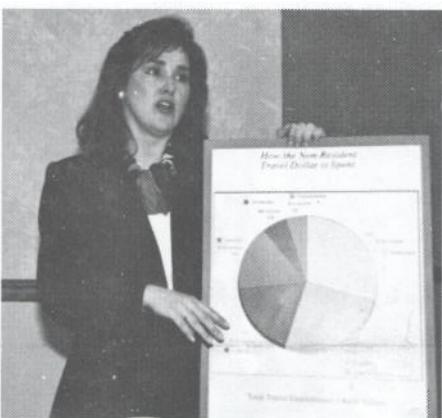
Setting up a slide presentation are Skeeter Carlson and his wife Doris. Skeeter's presentation covered his experiences in restoring and flying Jenny.



An interesting presentation by Juanita Cooke (far left) detailed her experiences as a WASP during World War II.



Dr. Tristan Stonger, Air Guard Flight Surgeon from Butte, spoke on the medical aspects of flying.



Montana tourism promotion and the use of the bed tax funds are explained by Sandra Guedes, administrator of the state's Montana Promotion Division.



In a very special (and surprise) presentation, Harry Fallis of Transport Canada awarded Mike Ferguson a plaque in recognition of his "personal and unique contributions to the advancement of International Aviation Education."



This year's recipient of the Van De Riet Flight Safety Award was Dr. Jerry Cockrell. Mike Ferguson made the presentation on behalf of the Van De Riet family.



Jay Van De Riet (left) and Mike Strand look over the plaque to be awarded for the Van De Riet Scholarship. Sadly missing from the 1990 Conference was Jay's father Ray who died in November after a battle with cancer. Ray had been the presenter of the Van De Riet awards at all previous conferences.



Winner of the 1990 Van De Riet Flight Scholarship was Tim Wilkins, Great Falls.



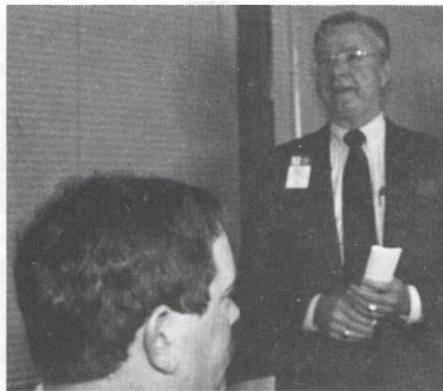
In special recognition of her long years devoted to aviation in Montana, Vivienne Schrank receives an award from AOPA, here presented by David Kennedy, Associate Director for State Legislative Affairs, Washington, DC.



MPA President Dave Gates presents Vic Wokal, Glasgow, with MPA's Senior Pilot of the Year Award.



Receiving the Junior Pilot of the Year Award is Randy Barrett, Helena.



Bill Shea, Aviation Education Program Manager, FAA, was generous enough to share his time with the airport managers and a teacher aviation education seminar as well as serving as luncheon speaker on Saturday.



On behalf of the Conference, Master of Ceremonies Mike Strand presents Bill Shea with a Montana centennial belt buckle.



A Montana wings pin is presented to Bill Shea by Mike Ferguson.



The extremely interesting banquet speaker was Capt. Mimi Tompkins who held the audience spellbound with her story of the flight of the 737 which lost its fuselage over Hawaii in 1988.



Capt. Tompkins is “pinned” with the Montana wings by Mike Ferguson following her banquet presentation.



Expressing the appreciation of the Helena Committee to Capt. Tompkins, Chairman Ron Mercer presents her with a gold nugget necklace.



Gordon Brandes, district sales manager of Northwest Airlines, made the drawings for four round-trip airline tickets courtesy of Northwest.

FAA ISSUES CERTIFICATES

PRIVATE

Douglas Hellinger	Shelby
Edwin Hoadley	Bozeman
Kenneth Kops	Helena
Milyn Pederson	Glasgow
Doreen Ratzburg	Ledger
Shawn Roods	Billings
Gary Seubert	Shelby
Albert Williams	Bozeman
John Rogan	Dillon
Marni Angood	Missoula
Trene Brousseau	Whitefish
Steve Burleson	Great Falls
Harold DeBuff	Judith Gap
Elgin Faber	Garneil
Jim Hagemeister	Miles City
Brent Hurst	Plentywood
Jack Morgenstern	Lewistown
Charles Morledge	Billings
Steve Reinhart	Billings
David Roberts	Dillon
Thomas Romo	Wolf Point
John Stuver	Broadus
James Traub	Missoula
Mark Turner	Columbia Falls

INSTRUMENT

Janet Anderson	Bigfork
Nicholas Bohlinger	Billings
James Kelly	Billings
Tim Wilkins	Great Falls
Monte Blain	Joliet
Gary McDonald	Bozeman
Donald Parrott	Roundup
Guy Emett	Helena
Mark Benner	Billings
James Korpi	Cascade

MULTIENGINE

David Vosen	Billings
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ATP

Gunner Hagstrom	Billings
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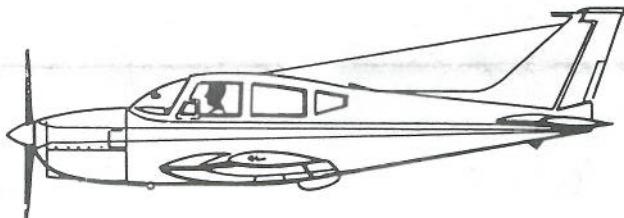
INSTRUCTOR

Gary Wagner	Billings
Edouard Trautwein (Ground)	Billings
Daniel Gliko	Belt
Russell Dahl (Instrument)	Glasgow

INSTRUCTOR RENEW/REINSTATE

Paul Newby	Bozeman
Clayton Vine	Wolf Point
Tim Wendland	Billings
Reidar Ilvedson	Forsyth
Gerald Mobley	Billings
Philip Petrik	Sidney
Kent Potter	Billings
Gary Roam	Billings
Richard Thomas	Billings
Arne Scarpholt	Glendive
Michael Biggerstaff	Stanford
Philip Brod	Great Falls
Boll Brosz	Great Falls
Gerald Bullinger	Billings
Wayne Cavill	Ryegate
Bill Chapman	Gardiner
Monty Demontigny	Helena
Patrick Doyle	Turner
Dennis Elgen	Culbertson
Guy Emett	Helena
William Fairhurst	Three Forks

Dennis Giulio	Boulder
Clark Haley	Lakeside
Carl Hartwig	Butte
Donald Hungerford	Great Falls
Lowell Jacobson	Glasgow
Clarence Kinna	Helena
Alan Lerner	Kalispell
Frederick Lueneburg	Columbus
Diana Manning	Great Falls
William Mayo	Colstrip
Robert McIver	Billings
Kenneth McNees	Helena
William Morse	Harlowton
Merton Myhre	Great Falls
Frederick Naehler	Kalispell
Gale Nayematsu	Billings
Raymond Ross	Bozeman
Roger Schmierer	Sidney
Michael Schwartz	Florence
Terry Sheehan	Billings
Marclom Soare	Sidney
Wayne Turner	Big Sandy



REPORTED UNSAFE CONDITIONS AT MONTANA AIRPORTS

Montana Pilots: You are requested to report to us any unsafe conditions observed at Montana's airports. Do not report operational problems or operation safety hazards. We solicit these comments as a service to all subscribers so that this column can disseminate these observations and improve pilots' awareness of hazards. Montana Aeronautics will not edit or make judgements concerning any reports as to their merit, nor will we institute any reprimand or other actions against the airport owner with regard to these remarks. What we will do is act on behalf of all Montana pilots to recommend correction to the airport owner to eliminate or reduce liability they may have with respect to any unsafe condition so identified. You, as an observer, may remain anonymous, and will always remain so in our correspondence to airport owners.

Sunburst (north of Shelby). Caution. Extremely rough, large grass clumps, many gopher holes, generally unsafe. Cut Bank Flight Service has issued a NOTAM concerning its use. Toole County has advised that corrective action will be taken.

Cut Bank. 308' unlighted tower, 10 miles northeast of CTB VOR on 20 degree radial, 4323 MSL. Use extreme caution when flying in this area. The Division has requested that the owner correct potentially hazardous situation.

DIVISION SPONSORS WORKSHOPS

The Aeronautics Division will again sponsor college Aviation/Aerospace Teacher Workshops June 11 - 29.

The college accredited workshops are offered through Eastern Montana College at Billings; the University of Montana at Missoula and Great Falls; Montana State University at Bozeman; Carroll College at Helena; and Dawson Community College at Glendive.

Through the workshops teachers are introduced to the world of aviation/aerospace. The concept of aviation education as it applies to all curriculum areas is introduced. Emphasis is placed on local, state, and federal resources - materials and people - and the utilization of these resources in the development of units and projects which teachers can use to integrate aviation and space

information into their regular classroom curriculum.

Over the years Montana teachers have brought aviation to thousands to Montana youth through the workshop program. Aviation career awareness is also broadened through aerospace education, and an understanding of the role and effect of aviation on our society is emphasized.

Workshop instructors for the 1990 session are: Carol Frederick, Billings; Paula DeKeyrel, Bozeman; Kristy Bick, Glendive; JoAnn Eisenzimer, Great Falls; Lanore Johnson, Helena; and Russ Larson, Missoula.

For further information and exact scheduling of each workshop, contact Fred Hasskamp at the Division at 444-2506.

REMINDER: NEW FSS NUMBER

Remember that since early March the FSSs all over the state of Montana can be reached by dialing one 800 number - 800-992-7433.

The phone company will route your call to one of the three FSSs closest to your calling location: Missoula, Billings, or Great Falls. From there, you may obtain briefings as usual.

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NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS

PURPOSE—"To foster aviation, as an industry as a mode of transportation for persons and property and as an arm of the national defense; to join with the Federal Government and other groups in research, development, and advancement of aviation; to develop uniform laws and regulations; and to otherwise encourage cooperation and mutual aid among the several states."



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